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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/161,520	09/29/1998	JUNICHI SATO	SON-1450/DIV	7768

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EXAMINER

BUEKER, RICHARD R

ART UNIT	PAPER NUMBER
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1763

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DATE MAILED: 01/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-22

Office Action Summary

Application No.

09/161,520

Applicant(s)

SATO, JUNICHI

Examiner

Richard Bueker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-14, 16-20, 22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-14, 16-20, 22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 12-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cote in view of Wang for the reasons stated in the previous office action.

Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cote in view of Wang, taken in further view of Wefers for the reasons stated in the previous office action.

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Krussell and Winebarger for the reasons stated in the previous office action.

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Krussell and Winebarger and in further view of Wefers for the reasons stated in the previous office action.

Claims 12-14 are rejected under 35 U.S.C. 102(a) or (e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamada for the reasons stated in the previous office action.

Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada taken in view of Wefers for the reasons stated in the previous office action.

Claims 14, 20, 22 and 24-27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, for the reasons stated in the previous office action.

Regarding the newly added limitation of "using a basic slurry containing abrasive particles consisting of boehmite" in claim 12, it is noted that this language does not exclude the presence of alumina abrasive particles in the slurry in addition to boehmite, as taught by Wang and also by Yamada. This language merely requires that abrasive particles consisting of boehmite be contained in the slurry. The way this limitation is phrased, it does not exclude the presence of other abrasive particles. The word "containing" as used in this phrase is equivalent to the word "comprising". Thus, this phrase is equivalent to "using a basic slurry comprising abrasive particles consisting of boehmite". The slurry as claimed can also comprise or contain abrasive particles consisting of another material, such as, for example, alpha-alumina.

Regarding the rejection of claims 16-20, applicant has argued that Wang's slurries do not contain abrasive particles that consist essentially of boehmite. It is noted, however, that the claim 16 limitation of "a slurry containing abrasive particles consisting essentially of boehmite" allows for the inclusion of alpha-alumina in the same manner that claim 12 limitation of "a slurry containing abrasive particles consisting of boehmite" does, as discussed in the preceding paragraph.

If, for argument's sake, however, applicant's claims were considered to exclude the presence of as little as 1% alpha-alumina as taught by Wang, such would still be considered obvious. In *In re Wilson*, 153 USPQ 740, it was held that it is prima facie obvious to omit an additional element from a prior art composition, along with the additional element's function, when that function is not desired. In the present case, Wang at col. 3, lines 65-67 discloses the additional function provided by the presence of

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alumina, namely a high removal rate and low rate selectivity relative to the bond layer. According to *In re Wilson* noted above, it is a prima facie obvious matter of choice to delete the 1% alpha-alumina disclosed by Wang, along with its function described by Wang.

Also, MPEP 2111.03 explains that the phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the invention (emphasis in original). The basic and novel characteristic of applicant's invention is set forth on page 14, lines 8-21, where it is stated that "(t)he present invention thus makes it possible to realize a polishing rate higher than that obtained in the related art using the silica base slurry". Applicant teaches (page 13, lines 11-12 of the specification) that this basic and novel characteristic is achieved by using "abrasive particles mainly made of boehmite". Wang teaches the use of abrasive particles of up to 99% boehmite and 1% alpha-alumina. Wang also teaches (col. 2, lines 26-27) that alpha-aluminum oxide is more abrasive than boehmite. Therefore, it appears clear that using 1% alpha-alumina with 99% boehmite would slightly increase the polishing rate compared to 100% boehmite, and would thus not materially affect the basic and novel features of applicant's invention, which is to provide a polishing rate higher than ^a silica ^{base slurry}.

Further regarding the recited "consisting essentially of" language, applicant has argued that "Wang slurries include submicron alpha-alumina particles as an essential and inventive component" (emphasis in original). It is true that Wang discloses that the presence of at least 1% alpha-alumina is an essential part of Wang's invention.

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Omission of the at least 1% alpha-alumina would, therefore, affect the basis and novel characteristics of *Wang's* invention, but that fact does not mean that the presence of 1% alpha alumina would materially affect the basic and novel characteristics of *applicant's* invention. As argued in the preceding paragraph, it would not.

Regarding the lack of enablement rejection, applicant has argued that one of ordinary skill in the art would recognize that the addition of another aluminum compound to a composition where abrasive boehmite particles are being formed would affect the solubility of the boehmite. It is noted, however, that there is no disclosure in applicant's specification and no evidence on the record to show that addition of sodium aluminate in the claimed manner would affect the solubility of boehmite. On the present record this appears to be merely speculation, and serves to illustrate how one skilled in the art could only speculate about the purpose of adding sodium aluminate in the manner claimed by applicant. Applicant has also argued that the total abrasiveness of the aluminum-type particles formed in the solution could be affected by the presence of sodium aluminate. This comment further illustrates the type of speculation one skilled in the art would have to engage in to try to understand applicant's cryptic disclosure at page 13, lines 15-16 of the specification.

Applicant has also argued that it would not constitute undue experimentation to determine by trial what amount of sodium aluminate should be used to obtain desired characteristics such as total aluminum particle abrasiveness and solubility of the boehmite. It is noted, however, that since the specification fails to state the purpose of adding sodium aluminate, one skilled in the art would not know what property to

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measure when trying various amounts of sodium aluminate. On the present record, it is only speculation to say that sodium aluminate affects aluminum particle abrasiveness or boehmite solubility.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (703) 308-1895. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on (703) 308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Richard Bueker
Richard Bueker
Primary Examiner
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January 20, 2002